

# DAOYUAN LAI

Homepage: <https://Daoyuan-Lai.github.io> Email: [davelai0609@gmail.com](mailto:davelai0609@gmail.com)

Run Run Shaw Building, The University of Hong Kong, Pokfulam Road, Hong Kong

## EDUCATION

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### Ph.D. Student in Statistics

Sep. 2020 - Jun. 2024 (Expected)

*Department of Statistics and Actuarial Science*

*Centre for PanorOmic Sciences, LKS Faculty of Medicine*

The University of Hong Kong (HKU), Hong Kong, China

### B.S. in Statistics

Sep. 2016 - Jun. 2020

*Department of Statistics and Data Science*

Southern University of Science and Technology (SUSTech), Shenzhen, China

## COMPUTATION SKILLS

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R, Matlab, Java, C++, HTML, CAD

## RESEARCH EXPERIENCE

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### Prof. Zhaojian's Li's Lab (Pattern Recognition)

Jun. 2019 -Sep. 2019

*(Remote) Michigan State University, Department of Mechanical Engineering*

- Optimizing an efficient online identification methodology with a composite local model structure, conducting a convergence analysis of the algorithm.
- Identifying traffic system's parameters by implementing a decentralized sparse multitask recursive least square algorithm.

### Prof. Guo-Liang Tian's Group (Computational Statistics and Optimization)

Sep. 2018 - Dec. 2018

*SUSTech, Department of Statistics and Data Science*

- Solving the skew-t-normal distribution's MLE by applying the MM algorithm with significantly less computational cost, compared with Newton's method.

### Prof. Chenglong Fu's Lab (Computer Vision)

Jan. 2017 -Feb. 2017

*SUSTech, Department of Mechanical and Energy Engineering*

- Demonstrating environmental features' estimation by using the random sample consensus (RANSAC) algorithm and contributed to optimizing the prostheses' recognition.

## RESEARCH PUBLICATION

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- Zhang, K., Xiong, C., Zhang, W., Liu, H., **Lai, D.**, Rong, Y., & Fu, C. *Environmental features recognition for lower limb prostheses toward predictive walking.* May 2016

## TEACHING

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### Teaching Assistant

Sep. 2019 - Present

- MAT7035 Computational Statistics (Graduate Course), SUSTech

## AWARDS AND HONORS

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- **Outstanding Graduates Honor**  
Department of Statistics and Data Science, SUSTech, China May 2020
- **Outstanding Dissertation Honor**  
Department of Statistics and Data Science, SUSTech, China May 2020
- **Outstanding Graduates Honor**  
Shuli College, SUSTech, China May 2020
- **Dean's list**  
Shuli College, SUSTech, China Jun. 2017
- **Outstanding Undergraduate Scholarship of SUSTech**  
SUSTech, China Jun. 2017, 2018, 2019